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(12) **United States Patent**
Brot et al.

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(54) **CARTRIDGE FOR CONSUMABLE PRODUCT FOR A PRINTER**

(58) **Field of Search** 347/214, 7, 19, 347/84, 85; 355/206; 399/12; 400/61, 70, 73

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(56) **References Cited**

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U.S. PATENT DOCUMENTS

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

4,961,088 A * 10/1990 Gilliland et al. 355/206
5,137,379 A * 8/1992 Ukai et al. 400/121
5,354,134 A * 10/1994 Patry 400/73
5,688,056 A * 11/1997 Peyret 400/61
6,144,812 A * 11/2000 Ueno 399/12

(21) Appl. No.: **09/674,166**

* cited by examiner

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ABSTRACT

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A cartridge for consumable product for a printer includes an electronic chip for storing technical data characteristic of the consumable product and for controlling printing. The chip is arranged to be read by the printer, and the chip is disposed on a removable support card. The chip stores one or more parameters for controlling printer operation and is arranged for the downloading of technical data from a server.

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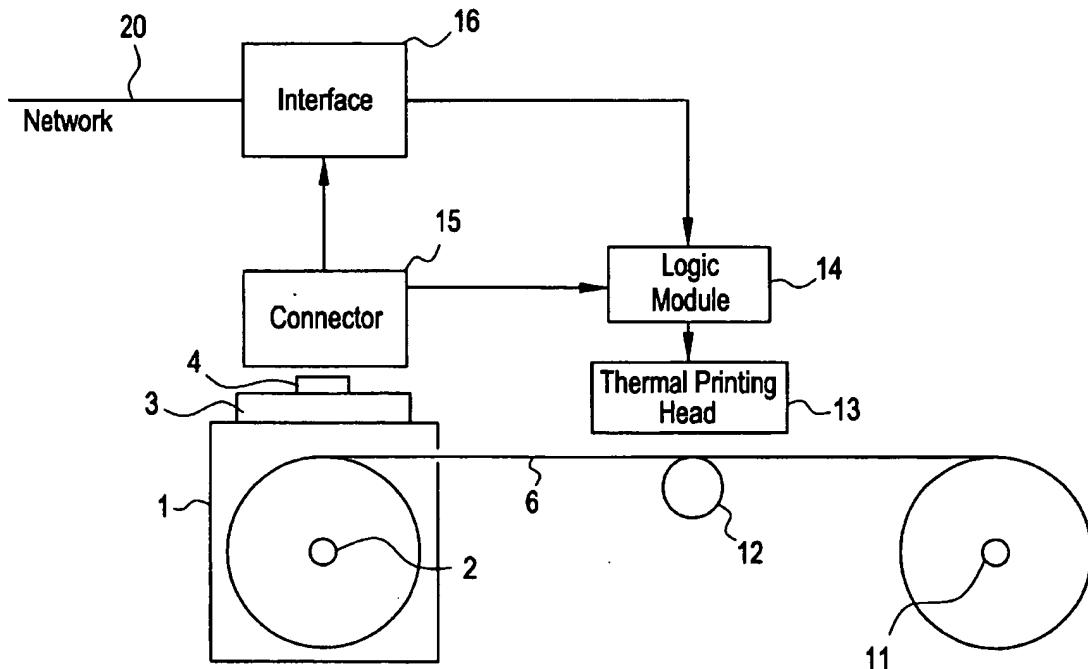
29 Claims, 2 Drawing Sheets

(30) **Foreign Application Priority Data**

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(51) Int. Cl.⁷ **B41J 33/60**

(52) U.S. Cl. **347/214; 347/19; 400/70**



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TITLE: Cartridge for consumable product for a printer

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Detailed Description Text - DETX (6):

In this case, since the fax machine, which includes the printer, has an interface 16 for plugging into a data transmission network (20), such as the switched telephone network or the Internet, the chip 4 can control the interface 16, via the connector 15, so as to establish a link with the server, so as to download the logic module 14 via the control data appropriate to the ribbon on the cartridge 1. To do this, the chip 4 sends on-line the call number of the server and then, communication having been established, the chip transmits data to the server identifying the type of cartridge, such as a reference number. This number serves as an internal address within the server for selecting the appropriate data for controlling the head 13 and sends them back to the logic module 14, across the interface 16.

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